UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,883	07/10/2003	Francisco J. Romero	200207858-1	2634

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EXAMINER
TO, JENNIFER N

ART UNIT	PAPER NUMBER
2195	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/616,883	ROMERO, FRANCISCO J.
	Examiner	Art Unit
	Jennifer N. To	2195

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>10 July 2003</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-33</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-33</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>10 July 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>See Continuation Sheet</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :07/10/2003, 12/13/2004, 01/03/2006, and 01/17/2006.

DETAILED ACTION

1.   Claims 1-33 are presenting for examination.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.   Claims 1-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

4.   Claims 1-27 are rejected under 35 U.S.C. 101 because the claimed invention are directed to system claim, but appearing to be comprised of software alone without claiming associated computer hardware required for execution. For example, the claims invention recited a monitoring agent (software module) that manipulated and monitored a plurality of data (application data, resource data, policy data). The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101.

<http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026. pdf>

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.   Claims 3, 5, and 26 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

    a.   The claim language in the following claims is not clearly understood:

        i.   as per claim 3, line 3, it is uncertain whether "the policies" refer

        performance policies, resource utilization policies, or both.

        ii.   as per claim 5, lines 1-2, it is not clearly understood what is meant

        by "the monitoring agent is further to contract a domain grouping one or

        more of the computers".

        iii.   as per claim 26, it is failing to further limit the subject matter of a

        previous claim (i.e. the limitation "the policy data further includes one or

        more resource utilization policies" already been addressed in claim 1).

        Applicant is required to cancel the claim(s), or amend the claim(s) to place

        the claim(s) in proper dependent form.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

    A person shall be entitled to a patent unless –

    (e) the invention was described in (1) an application for patent, published under section 122(b), by
    another filed in the United States before the invention by the applicant for patent or (2) a patent
    granted on an application for patent by another filed in the United States before the invention by the
    applicant for patent, except that an international application filed under the treaty defined in section
    351(a) shall have the effects for purposes of this subsection of an application filed in the United States
    only if the international application designated the United States and was published under Article 21(2)
    of such treaty in the English language.

8.   Claims 1-5, and 10-27 are rejected under 35 U.S.C. 102(e) as being antcipated

by Srinivasan et al. (hereafter Srinivasan) (U.S. Publication No. 2004/0111725).

9.   Srinivasan was cited in IDS filed 12/13/2004.

10.   As per claim 1, Srinivasan teaches the invention as claim including a system

comprising:

       resource data, the resource data including information on a plurality of resources,

the resources including a plurality of computers (paragraphs [0024]-[0025]);

       application data, the application data including one or more application profiles,

each application profile having a performance profile and a resource profile, the

resource profile including resource utilization information (abstract; paragraphs [009],

[0021], [0033]-[0042]) ;

       policy data, the policy data including one or more application performance

policies and one or more resource utilization policies (fig. 3; paragraphs [009], [0033]-

[0037]); and

       a monitoring agent to monitor the application data for compliance with the policy

data (abstract, lines 11-13; application scheduler; paragraph [009]).

11.   As per claim 2, Srinivasan teaches that wherein at least one of the applications

comprises an aggregate application executing on at least two of the computers

 (paragraph [0021]).

12.   As per claim 3, Srinivasan teaches that wherein the monitoring agent is further to perform arbitration within a domain grouping one or more of the computers in response to a violation of one of the policies (paragraphs [0037], [0042]).

13.   As per claim 4, Srinivasan teaches that wherein the monitoring agent is further to expand a domain grouping one or more of the computers in response to a policy violation (paragraphs [0025], [0038]).

14.   As per claim 5, Srinivasan teaches that wherein the monitoring agent is further to contract a domain grouping one or more of the computers (paragraph [0037]).

15.   As per claim 10, Srinivasan teaches that wherein the resource profile further includes resource demand information on the amount of resources an application requires (paragraph [0024]).

16.   As per claim 11, Srinivasan teaches that wherein the resource utilization information includes resource consumption information on the amount of resources an application is currently assigned (paragraphs [0029]-[0033]).

17.   As per claim 12, Srinivasan teaches that wherein the resource utilization information includes at least one of resource consumption information on the amount of resources an application is currently using, and resource consumption information on

the amount of resources an application has used over a period of time (paragraph [0039]).

18.   As per claim 13, Srinivasan teaches that wherein one of the computers is associated with a container to execute one of the applications (paragraph [0037]).

19.   As per claim 14, Srinivasan teaches that wherein one of the computers is associated with a plurality of containers, each container to execute one of the applications (paragraph [0037]).

20.   As per claim 15, Srinivasan teaches that wherein the policy data further includes one or more container utilization policies, each utilization policy associated with one of the containers (paragraph [0037]).

21.   As per claim 16, Srinivasan teaches that wherein at least one of the containers is a partition (paragraph [0037]).

22.   As per claim 17, Srinivasan teaches that wherein the monitoring agent is further to resize the partition in response to a violation of one of the policies (paragraph [0038]).

23.   As per claim 18, Srinivasan teaches that wherein the partition is a hardware partition (paragraph [0037]).

24.   As per claim 19, Srinivasan teaches that wherein the partition is a software-based partition (paragraphs [0037]).

25.   As per claim 20, Srinivasan teaches that wherein at least one of the containers is a processor set (paragraph [0037]).

26.   As per claim 21, Srinivasan teaches that wherein at least one of the containers is a sub-CPU resource partition (paragraph [0037]).

27.   As per claim 22, Srinivasan teaches that wherein the performance information includes response time (paragraph [0040]).

28.   As per claim 23, Srinivasan teaches that wherein one or more of the application profiles includes resource allocation information for the associated application (paragraph [0021]).

29.   As per claim 24, Srinivasan teaches that wherein one or more of the application profiles further includes instructions for installing the associated application (paragraphs [0043]-[0050]).

30.   As per claim 25, Srinivasan teaches that wherein the instructions further include

instructions for configuring the associated application (paragraphs [0043]-[0050]).

31.   As per claims 26, Srinivasan teaches that wherein the policy data further includes

one or more resource utilization policies (fig. 3; paragraphs [009], [0033]-[0037]).

32.   As per claim 27, Srinivasan teaches that wherein the performance policies have

a relative associated priority (paragraph [0033]).

Claim Rejections - 35 USC § 103

33.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

34.   Claims 6-9, and 28-33 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Srinivasan et al. (hereafter Srinivasan) (U.S. Publication No.

2004/0111725), and in view of Stone (U.S. Patent No. 6823382).

35.   As per claim 6, Srinivasan teaches the invention as claimed in claim 1.

Srinivasan did not specifically teach domain definition data, the domain definition data

including information on a plurality of domains, each domain comprising a grouping of

one or more computers, one or more of the domains being a cluster.

36.   However, Stone teaches domain definition data, the domain definition data

including information on a plurality of domains, each domain comprising a grouping of

one or more computers, one or more of the domains being a cluster (col. 7, lines 17-27).

37. .   It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have combined the teaching of Srinivasan and Stone because

both of Srinivasan and Stone teaching of monitoring performance of server computers

and applications.   In addition Stone teaching of domain definition data, the domain

definition data including information on a plurality of domains, each domain comprising

a grouping of one or more computers, one or more of the domains being a cluster would

improved the integrity of Srinivasan's system by providing a system that capable of

monitoring and controlling server computers and applications (Stone, col. 1, lines 9-10).

38.   As per claim 7, Stone teaches that wherein the cluster comprises a first container

executing a set of replicated instances of an application on a first set of nodes and a

second container having a second set of nodes (col. 7, lines 17-27).

39.   As per claim 8, Stone teaches that wherein the monitoring agent is further to

transfer a node from the second container to the first container in response to a violation

of one of the policies (col. 9, lines 10-33).

40.   As per claim 9, Stone teaches that domain definition data having information on a

plurality of domains, each domain comprising a grouping of one or more computers, the

domain definition data further including information on the resource utilization of a

domain (col. 7, lines 17-36; col. 13, lines 34-45).

41.   As per claim 28, Srinivasan teaches the invention substantially as claim including

a method comprising:

monitoring application data for compliance with one or more performance

policies, the application data including one or more application profiles, each application

profile having a performance profile and a resource profile, the resource profile including

resource utilization information associated with an application, each application

executing in a container, the resources including a plurality of computers; in response to

a policy violation, automatically enforcing the policy by expanding a first one of the

containers (fig. 3; paragraphs [009], [0021]-[0042]).

42.   Srinivasan did not specifically teach that each application executing in a

container associated with a domain, each domain including one or more resources.

43.   However, Stone teaches that each application executing in a container

associated with a domain, each domain including one or more resources (fig. 2; col. 7,

lines 17-36; col. 13, lines 34-45, each tier comprise one or more server).

44.   It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have combined the teaching of Srinivasan and Stone because

both of Srinivasan and Stone teaching of monitoring performance of server computers

and applications. In addition, Stone teaching of each application executing in a

container associated with a domain, each domain including one or more resources

would improved the integrity of Srinivasan's system by providing an improved system

that capable of monitoring and controlling server computers and applications (Stone,

col. 1, lines 9-10).

45.   As per claim 29, Srinivasan teaches that wherein the first container comprises a

partition and expanding the first container comprises resizing the partition (paragraph

[0038]).

46.   As per claim 30, Stone teaches that wherein the domain associated with the first

container comprises a cluster (fig. 2).

47.   As per claim 31, Stone teaches that wherein expanding the first container

comprises transferring a node associated with a second container, the second container

being in the domain associated with the first container, to the first container (col. 9, lines

10-33).

48.   As per claim 32, Stone teaches that in response to a second policy violation,

providing a message to a user (col. 5, lines 43-51; col. 8, lines 9-19).

49.   As per claim 33, Stone teaches that wherein the message comprises a message

that a lower priority policy cannot be met (col. 5, line 59-60; col. 14, line 64 through col.

1, line 16).

Conclusion

50.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Richter et al. (U.S. Publication No. 2002/0194251), Hartsell et al. (U.S.

Publication No. 2002/0065864), and Reichman (U.S. Patent No. 6738813) teach

method and system for monitoring performance and resource utilization of server

system.

51.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jennifer N. To whose telephone number is (571) 272-

7212. The examiner can normally be reached on M-T 6AM- 3:30 PM, F 6AM- 2:30 PM.

52.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

53.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jennifer N. To
Examiner
Art Unit 2195

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